

STUDENT EVALUATIONS OF PEER INTERACTION IN AN “ENGLISH EXPRESSION” COURSE

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Recently, there has been a great deal of discussion concerning the contribution of Vygotsky's perspective on the role of interaction in second language learning (Lantolf, 2000; Nassaji & Swain, 2000; Ohta, 2000, 2001; Storch, 2000; Swain, Brooks & Tocalli-Beller, 2002). Vygotskian cultural-historical psychology is often called sociocultural theory (SCT) of mind in applied linguistics and SLL(Second Language Learning) research. In SCT, cognitive development is considered to occur in interaction with others.

The role of interaction can be analyzed through a sociocultural framework, particularly by means of the concepts of the zone of proximal development (ZPD)(Vygotsky, 1930s/1978) and scaffolding, which are important theoretical notions that explain how cognitive development occurs. Until now, theoretical and empirical descriptions of scaffolding have mainly focused on the role of an expert (the more knowledgeable other) in the learning situation (e.g., Aljaafreh & Lantolf, 1994; Nassaji & Swain, 2000). Another focus has been on the reinterpretation of the *more knowledgeable other*, so that a growing number of L2 learning studies have begun to investigate peer interaction.

Studies on peer interaction (Anton & DicCamilla, 1998; Donato, 1994; Ohta, 2001; Storch, 2002; Swain & Lapkin, 1998) have shown that peer interaction mediates SLL. Some studies have shown that not only do more proficient learners assist their peers, but mutual assistance among learners of similar proficiency also occurs (Donato, 1994; Ohta, 2001; Swain & Lapkin, 1998). Most past studies on peer interaction, however, have been undertaken in Western settings, and there are few studies in non-Western classrooms, especially research dealing with high school students. Furthermore, evaluation of peer interaction from learners'

perspectives has rarely been researched. This study analyzes student evaluations of peer interaction in an “English Expression” course for one academic year, from a sociocultural perspective.

Theoretical Background

In SLL research, there is a need for a more holistic view of language learning processes, and it is important to view these processes as emerging from relationship between learners and their sociointeractive environment. A sociocultural perspective defines human learning as a dynamic social activity that is situated in physical and social contexts, and is distributed across persons, tools, and activities (Rogoff, 2003; Vygotsky, 1930s/1978; Wertsch, 1991). Furthermore, a sociocultural perspective on human learning shows several interrelated aspects of L2 learning: mediation, social interaction, the zone of proximal development (ZPD) and human agency.

First, the most fundamental concept of SCT is that the human mind is mediated (Lantolf, 2000). We use language as one of our *symbolic tools* to mediate and regulate our relationships with others and ourselves (Vygotsky, 1930s/1978). SCT rejects the notion that thinking and speaking are completely independent phenomena, with speaking serving only as a means of transmitting already formed thoughts. In this view, thinking is considered to be tightly interrelated with speaking in a dialectic unity (Lantolf, 2000). Without dichotomizing the mental domain and the social domain, SCT emphasizes a dialectic relationship between these two domains.

Secondly, a sociocultural perspective assumes that human cognition is formed through engagement in social activities. In other words, cognition and knowledge are regarded as constructed through *social interaction* (e.g., Lantolf, 2000; Lantolf & Appel 1994; Ohta, 1995, 2000, 2001). For human development, social connections and relations, and social cooperation (Vygotsky, 1930s/1999) are essential. In other words, individual cognition emerges in and through engagement in social activity. In addition, language is viewed as a means of accomplishing

social interaction in SCT.

Thirdly, the ZPD, termed by Vygotsky (1978), is also an important construct which explains how learning takes place in sociocultural theory. The notion of the ZPD particularly has had the greatest impact on Western scholarship and education (Lantolf & Thorne, 2006). Vygotsky (1978) defines the ZPD as the distance between the actual developmental level and the level of potential development. The former is determined by independent problem solving and the latter is determined through problem solving under adult or teacher guidance or working together with more capable peers. The ZPD defines development prospectively and every learner has his or her own ZPD, where future learning may take place. The graduated and contingent nature of the help provided by the expert has been referred to in the literature as *scaffolding* (Wood, Bruner, & Ross, 1976). Wertsch (1979) describes scaffolding as a dialogically produced interpsychological process, and claims that learners internalize knowledge they co-construct with more capable peers through scaffolding. This means that engagement in dialogic mediation leads to higher level cognitive development.

Furthermore, some researchers (Donato, 1994; Ohta, 2001; Swain & Lapkin, 1998) claim that the cognitive assistance that emerges through dialogic mediation within the ZPD is not necessarily provided by a more capable peer or expert. Ohta (2001), for example, showed the effectiveness of peer scaffolding during oral pair-work. Her classroom corpus showed that learner assistance occurred frequently during peer interactive tasks when students struggled to produce utterances in their L2. It was also found that even peers with less knowledge were able to help more proficient peers because of "pooling of expertise" (Ohta, 2001, p.76). She examined alternate roles of peer interaction and found that interactive tasks are similar to conversation in that a learner alternates as *speaker* and *listener*. In each role, working memory and selective attention are used differently, as a result, even a weaker learner might be able to assist a stronger one.

Finally, a sociocultural perspective also emphasizes the role of human agency in the developmental process. It is considered that an individual is mediated not only by material and symbolic tools, but

also by social formations. Agency is considered as a relationship, being constantly co-constructed and renegotiated with social environment (Lantolf & Pavlenko, 2001). In other words, a learner is viewed as a situated agent in a dynamic, ever-changing context. Agency is constructed through participation in specific communities of practice (Lantolf & Thorne, 2006). Communities of practice (Lave & Wenger, 1991) describe learning through practice and participation. In that sense, an English as a foreign language (EFL) classroom at a high school is considered to be a community of practice.

In interaction with others, expressing one's ideas or opinions in the second language (L2) can be analyzed or interpreted not only from linguistic forms or language skills, but also from the meanings expressed by learners. Meaning "can come into existence only when two or more voices come into contact: when the voice of a listener responds to the voice of a speaker" (Bakhtin cited in Wertsch, 1991, p. 52). When one produces an utterance, it represents his or her point of view or consciousness and it can be addressed to others and the self. Voices cannot be separated from the social environment. Language learning classrooms cannot be seen in isolation from the social milieu but as deeply embedded in it.

So far peer scaffolding has some support in the literature on SLL research but requires further empirical validation from the learners' perspectives. By analyzing student evaluations of peer interaction, this study will reveal whether or not the students perceive peer interaction as meaningful in an "English Expression" course. By examining whether there are any differences between the lower and the higher grade groups in the evaluation of peer interaction, this study will also investigate whether or not the students with higher grades as well as the students with lower grades perceive peer interaction as meaningful.

The researcher investigated the following three research questions:

1. How do students themselves evaluate peer interaction in an "English Expression" course?
2. Do students perceive peer interaction as meaningful in an "English Expression" course?
3. Are there any differences between lower and higher grade groups

in evaluations of peer interaction?

Method

Participants and setting

The participants were 75 Japanese public high school students. The selection process for participants was a sample of convenience. They were 15- or 16- year-old students, who majored in foreign studies and took an “English Expression” course as one of the compulsory subjects in the school curriculum. The “English Expression” course was offered in four classes. Each class consisted of 20 students. The purpose of this “English Expression” course was to nurture the students’ ability to express their feelings, ideas, and opinions in English. The students engaged in dialogic interactions with another individual learner (peer interaction) during speaking activities and pre- and post-writing activities.

In speaking activities, the students worked in pairs, asking questions and answering them on certain topics: (a) talking about yourself/ talking about your community, (b) career consultation, (c) a dream come true, (d) Let’s invent something, and (e) the latest news I’m most interested in. In order to generate ideas, the students exchanged their ideas or opinions in the form of interview or through Q&A sessions. During peer interaction, they expressed their feelings, ideas and opinions, responded to partners’ remarks, and agreed or disagreed with partners’ opinions.

After the speaking activities, they were required to write about the topics based on what they had obtained or learnt through the question and answer sessions or interview. The lessons that came before the composition assignments were pre-writing activities, in which students were supposed to generate contents and to organize them. In the pre-writing activities, peer interaction was introduced for the brainstorming, asking questions to help the partner to organize his/her ideas, interviewing with each other for the draft and giving feedback and responding to it. The lessons that came after the writing assignments were peer feedback and expansion activities. In the post-writing activities, the students worked in pairs, reading partners’ essays, giving feedback orally or

writing comments on partners' essays.

Pilot Study

A pilot study was conducted with 50 students in a general studies course, who were concurrently enrolled in an 'English Expression' course at the same public high school. The respondents completed a questionnaire, the wording of which was modified for the present study.

Instruments

The researcher employed a three-phase procedure with the first phase as exploratory, the second as instrument development, and the third as administering the instrument to a sample of a population.

Qualitative Data Collection

In this sequential exploratory approach, themes and specific statements from the participants were obtained in the initial qualitative data collection. The students in a general studies course were asked to write evaluations of peer interaction they had experienced in the yearlong "English Expression" course at the end of the year in the open-ended questionnaire (Appendix A). In order to see peer interaction from learners' perspectives, it was necessary to collect various kinds of comments concerning pair-work activities from the students, in other words, eliciting the students' voices directly.

Quantitative Data Collection and Analysis

Data were collected by means of a questionnaire containing 24 items. The items in the questionnaire were developed utilizing the qualitative data collected from the students in a general studies course in the first phase. The questionnaire used in this quantitative study consisted of 24 five-point Likert-scale items (1 = *strongly disagree* to 5 = *strongly agree*). The collected data was analyzed using the Statistical Package for the Social Sciences (SPSS) computer program ver.19. As for Research Question 2, exploratory factor analysis was used to explore the interrelationships of the items and to find common underlying themes among them. As for Research Question 3, in order to

compare evaluations of peer interaction by course grade achievement, the 76 students were divided into two groups according to the 5-point-scale final grade of one academic year: Group A and Group B. The present researcher was the teacher who taught these classes and assigned grades. The grades were based on mid-term exams, term-end exams, and evaluations of presentations and written assignments. Forty-two students whose final grades were 4 or 5 were assigned to Group A (the higher grade group). Thirty-three students whose final grades were 2 or 3 were assigned to Group B (the lower grade group). Analysis of Variance (ANOVA) was used to see whether there were any significant differences between the lower and the higher grade groups in the evaluation of peer interaction. Two-way ANOVA (mixed design) was performed (grade level \times evaluations of 5 factors).

Mixed Methods Data Analysis Procedures

The researcher needed to develop an instrument first. So the primary focus of the first qualitative phase was to initially explore the phenomena. However, weight was placed on the following quantitative phase in order to generalize and expand on the qualitative findings.

Results

General Description

As for RQ1, the qualitative data showed that no students wrote negative comments about peer interaction and three students wrote neutral comments such as "I was not aware of the effects of peer interaction in particular," on the open-ended questionnaire (see Appendix A). Out of 50, 47 students evaluated peer interaction positively from various aspects. Some of the comments are shown in Table 1. Since the students engaged in dialogic interaction during speaking activities and pre- and post-writing activities, peer interaction seem to have offered opportunities not only for improving their language skills but also for encouraging development of ideas, deepening their thoughts and enhancing mutual understanding.

Based on the qualitative data, the items in the questionnaire were developed for collecting quantitative data. The development of the instrument was proceeded by analysis of comments received from a qualitative survey. Then comments were categorized by theme to create the instruments. Table 1 gives selected items developed with representative quotations from the qualitative data. All types of comments were included in the 24 items in the five-point Likert-scale questionnaire.

Table 1
Development of Survey Items

<i>Items</i>	<i>Supporting Qualitative Data</i>
Pair work activities have helped me to come up with L2 words more easily than before.	“The experience of talking about various things with my partner in English has helped me to come up with L2 words more easily than before.”
Pair work activities have helped me to improve my speaking skills.	“Pair work activities have put me in situations in which I have to use English, which has helped me to improve my speaking skills.”
Pair work activities have given me an opportunity to know more about my partners.	<p>“Pair work activities have given me opportunities to talk with the classmates with whom I rarely talked even in Japanese, by which I could know more about my classmates.”</p> <p>“After pair work activities, I wrote essays about my partners, which was a good opportunity for me to know more about them.”</p>

Working in pairs has made it possible for me to complete writing essays.	"I could not have completed writing my essay if I had worked alone, but teaching each other in a pair has made it possible for me to complete it."
Pair work activities have helped me to elicit ideas.	"Pair work activities have helped me to elicit ideas which I could not have come up with if I had worked alone" "By listening to the opinions of my partners, I could deepen my thought, which has made my opinions clearer."
Advice from my peers has helped me to complete my essays.	"It might have been difficult for me to complete writing my essays alone, but pair work activities have helped me to write them by myself since I had opportunities to consult with my partners about them and receive advice from them."

As for RQ2, exploratory Factor Analysis was performed for extracting underlying factors using statistical software SPSS ver.19. Initially, the factorability of the 24 items was examined. First, the Kaiser-Meyer-Olkin measure of sampling adequacy was .786, above the recommended value of .6, and Bartlett's test of sphericity was significant ($\chi^2 (171) = 658.4, p < .05$). Secondly, the communalities were all above .4, further confirming that each item shared some common variance with other items. Given these overall indicators, factor analysis was conducted with all 24 items.

Principle components analysis was used to identify and compute composite coping scores for the factors. The initial eigen values showed that the first factor explained 30.9% of the variance, the second factor 16% of the variance, and the third factor 7.3% of the variance. The fourth

factor 6.1%, the fifth factor 5.4%, the sixth factor 4.6% and the seventh factor 4.5% had eigen values. The eighth factor had eigen value of 3.9%. Four, five and six factor solutions were examined, using varimax rotation of the factor loading matrix. Then, both the varimax and promax solutions were examined in the subsequent analyses before deciding on a promax in rotation for the final solution. The five factor solution, which explained 56.2% of the variance, was preferred because of the ‘leveling off’ of eigen values on the scree plot after five factors, and the insufficient number of primary loadings and difficulty of interpreting the six factor and subsequent factors.

During several steps, a total of five items were eliminated because they did not contribute to a simple factor structure and failed to meet a minimum criteria of having a primary factor loading of .4 or above, and no cross-loading of .3 or above. This process resulted in the elimination of five items: items 10, 13, 16, 19 and 21. Item 13 and Item 16 did not load above .3 on any factor: “I was motivated to complete my assignment which was used for pair work activities”, and “pair work activities have helped me to express my opinion maintaining good eye contact”. The item 10 and item 19 had factor loadings between .35 and .36: “Through pair work activities, I learned different types of English expressions”, and “I always teach my partner during pair work activities”. Item 21 did not contribute to a simple factor structure.

Factor analysis of the remaining 19 items, using promax rotation was conducted. An unweighted least squares provided the best defined factor structure, with the five factors explaining 55.4% of the variance. All items had primary loadings over .4. Factor loadings for exploratory Factor Analysis with promax rotation are shown in Table 2. Factor loadings > .40 are in boldface.

Table 2***Factor Loadings for Exploratory Factor Analysis With Promax Rotation***

Items	Factors				
	1	2	3	4	5
24	0.863	-0.04	0.337	-0.179	0.018
23	0.816	-0.051	-0.147	0.207	-0.082
11	0.625	0.233	0.029	-0.181	-0.082
1	0.498	-0.011	0.007	0.294	0.032
5	0.466	0.247	-0.276	0.164	-0.111
14	0.111	0.872	0.029	-0.17	-0.199
6	0.021	0.666	-0.167	0.156	0.111
22	-0.034	0.596	0.122	0.161	-0.002
12	0.146	0.553	0	0.035	0.197
15	0.01	0.467	0.198	-0.301	0.175
18	0.047	-0.121	0.687	0.143	-0.051
20	-0.005	0.131	0.489	0.09	0.13
17	-0.153	0.361	0.403	0.144	-0.152
7	-0.067	0.06	0.13	0.825	-0.093
4	0.246	-0.334	0.092	0.587	0.074
9	-0.071	0.07	0.386	0.545	-0.055
8	0.07	0.124	0.337	0.418	0.16
3	-0.167	-0.082	0.032	-0.065	0.903
2	0.126	0.134	-0.148	0.045	0.715

Items in the five-point Likert-scale questionnaire and factor assignment are shown in Table 3. In order to assess internal consistency, Cronbach's alpha was derived for each factor, which is also shown in Table 3. Cronbach alpha for each subscale ranged from .66 to .86.

Table 3
Items in the Five-Point Likert-Scale Questionnaire and Factor Assignment

Items	Questionnaire statement	Mean
Factor 1: Social interaction with peers in L2 ($\alpha = .80$)		
24	Pair work activities have helped me to improve communication skills.	4.2
23	Pair work activities have given me an opportunity to know more about my partners.	4.1
11	In peer presentation, I did not feel nervous at all.	4.3
1	Question-and-answer sessions have helped me to organize my own ideas.	4.0
5	I was able to speak English with my partner without fear of making mistakes.	4.2
Factor 2: Promotion of oral output ($\alpha = .82$)		
14	Pair work activities have helped me to recall the words or expressions when I write an essay.	3.8
6	Pair work activities have helped me to come up with L2 words more easily than before.	4.0
22	Pair work activities have helped me to improve my speaking skills.	3.9
12	Through pair work activities, I have been able to utter L2 words more easily.	4.2
15	Pair work activities have made me pay more attention to my pronunciation.	3.9
Factor 3: Mutual teaching and learning ($\alpha = .66$)		
18	Working in pairs has made it possible for me to complete writing essays.	3.6
20	Both of us in a pair have had the opportunity to teach and learn from each other.	3.7
17	I learned how to express something in English through the expressions my partner used.	3.9

Factor 4: Encouragement in developing ideas and concepts ($\alpha = .81$)

7	Speaking activities in pairs have helped me to write about topics in English.	3.9
4	Through pair work activities, I could deepen my thought.	4.4
9	Pair work activities have helped me to elicit ideas.	4.1
8	Advice from my peers has helped me to complete my essays.	3.8

Factor 5: Improving aural-oral skills ($\alpha = .74$)

3	Question-and-answer sessions in pair work activities have helped me to improve my listening skills.	4.1
2	Question-and-answer sessions in pair work activities have helped me to improve my speaking skills.	4.2

Descriptive statistics for the five subscales are presented in Table 4. The skewness and kurtosis were well within a tolerable range for assuming a normal distribution.

Table 4
Descriptive Statistics for Five Subscales

Factor	Min	Max	M(SD)	Skewness	Kurtosis
Social interaction with peers in L2	4.00	4.30	4.1(2.84)	-.88	2.8
Promotion of oral output	3.78	4.22	4.0(3.07)	-.30	1.4
Mutual teaching and learning	3.59	3.88	3.7(1.97)	-.41	-.06
Encouragement in developing ideas and concepts	3.82	4.43	4.1(2.48)	-.59	.46
Improving aural-oral skills	4.15	4.24	4.2(1.21)	-.65	.40

As for RQ3, an ANOVA was used in order to see whether there were any significant differences between the higher grade group (Group A) and the lower grade group (Group B). Means of each factor by the lower and the higher grade groups are shown in Figure 1.

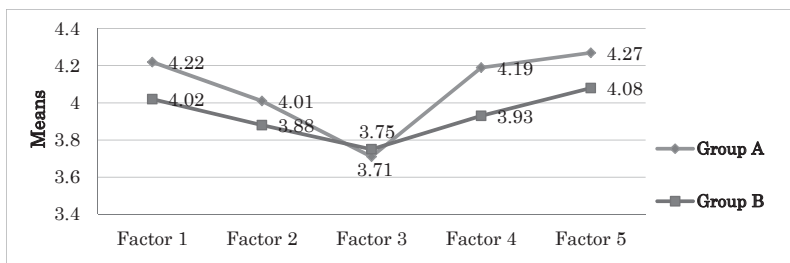


Figure 1 Means of Each Factor by the Lower and the Higher Grade Groups

A two-way ANOVA (grades×factors) was performed. The significance level was set at .05. The result showed that there was no significant interaction between the two main effects, grades and factors, $F(4, 70) = 1.255, p > .05$. It also showed that there were no significant effects related to grades, $F(4, 70) = 2.374, p > .05$.

Answers to Research Question Two

The result of factor analysis showed that the *mean* of Factors 1, 2, 4 and 5, was over 4.0, and the mean of Factor 3 was under 4.0. It means that the students evaluated peer interaction positively in Factors 1, 2, 4 and 5, while Factor 3 was not so positively evaluated. It means that the students perceive peer interaction as meaningful mainly in four aspects: social interaction with peers in English, promoting oral output, encouraging students to develop their ideas and concepts, and improving aural-oral skills. However, in one aspect such as ‘mutual teaching and learning’, peer interaction did not turn out to be highly evaluated by the students.

Answers to Research Question Three

The results of ANOVA showed that there were no significant differences between the lower and the higher grade groups in the evaluation of peer interaction, indicating that the grade difference had no effect on how students evaluated peer interaction. It means that the

higher-grade students as well as the lower-grade students perceived peer interaction as meaningful in Factor 1, Factor 2, Factor 4, and Factor 5.

Discussion

First the findings related to each of the factors are discussed in this discussion section. Then the findings concerning the evaluation by two groups, the lower grade and the higher grade groups, are discussed .

Factor 1: Social interaction with peers in L2 (M=4.1)

The students highly evaluated peer interaction, focusing on what is being accomplished by participating in the activities. In other words, pair work activities were considered to have helped the students to improve communication skills in that they could make themselves understood and understand their partners. Language was used to represent ideas and to interpret experiences. It can be interpreted that language functions as a psychological tool that is used to make sense of experience. Furthermore, it functions as *a cultural tool* (Vygotsky, 1978) in that it is used to share experiences with others, thus transforming experience into cultural knowledge and understandings.

The students positively evaluated peer interaction because it provided them with opportunities to build and nurture human relationships, learn about each other and understand each other. In peer interaction, language was used as one of our symbolic tools (Vygotsky, 1978) to mediate and regulate our relationships with others and ourselves. This suggests that language was used as a means of accomplishing social interaction with peers in L2.

The existence of the other and responses from him or her make the utterances themselves meaningful. It is not until two or more voices come into contact that meaning can come into existence (Bakhtin, 1986). It can be said that peer interaction brought something meaningful to the students: relating oneself to others, connecting one's ideas or feelings with those of others, making an effort to build mutual understanding, and building basic human relationships, which the controlled, lecture type of

lessons are not able to create in the classroom.

Factor 2 : Promotion of oral output (M = 4.2)

Through pair work activities, utterances of L2 words were promoted, and the experiences of talking about various things with students' partners in English promoted oral output in L2 more promptly than before. Furthermore, students might have collaboratively built utterances that were a bit beyond their reach by working in pairs. In order to communicate with their peers, the students needed to utter sounds to maintain conversation. Peer interaction involves the expectation, within a defined community of practice, of the response to one's utterance that in turn can be seen to mediate the production of the utterance in the first place. Full participation is required of each learner since their existence is indispensable to their partners, so that any utterances of L2 are required in peer interaction. Therefore, the degree and necessity of each student's producing utterances were much higher than those of teacher-fronted classrooms, which, as a result, might have led to promotion of oral output of L2. In addition, peer interaction might have contributed to making the students feel at ease in producing utterances, or even fragments of words. These aspects enabled the exchange of ideas to continue regardless of the linguistic limitations of the students.

Factor 3 : Mutual teaching and learning (M= 3.7)

Compared with other factors, the mean of Factor 3 was rather low, 3.7. Metalinguistic knowledge is required in order to teach and learn how to express in English. It can be interpreted that, for the students, that 'teaching' means that one needs to use grammatical terms or to explain with metalinguistic terms. If the students are not equipped well with this kind of metalinguistic knowledge, it may be difficult for them to teach and learn mutually. Writing an essay may be cognitively more demanding than speaking, since the learners have to pay more attention to accuracy of L2 language forms. It might be difficult for some learners, who are in the middle of nurturing metalinguistic knowledge, to utilize their knowledge for teaching it to their peers.

Factor 4: Encouragement in developing ideas and concepts (M = 4.1)

When they listened to the opinions of their peers, the students empathized with them and they could deepen their thought. The students could feel empathy for their partners by listening to their feelings or ideas presented in their L2. It implies that they were engaged in exchanging not only information but also something more meaningful during dialogic interaction. It can be said that mutual engagement and rapport were established through dialogic interaction. This can be regarded as one of the conditions for scaffolding in language classes: *intersubjectivity* (van Lier, 2004), the characteristics of which are "mutual engagement, encouragement, non-threatening participation" (van Lier, 2004, p.151).

In addition, by listening to the opinions of their peers, students could deepen their thought. This shows how language mediates thinking in an EFL classroom. A series of questions asked by student A may lead student B to recognize how he/she feels or what he/she thinks of a certain topic, assisting his/her to organize his/her ideas. As SCT suggests, thinking and speaking are tightly interrelated in a dialectic unity (Lantolf, 2000). In other words, higher cognitive development is a dialogic process of transformation of self and activity rather than simply the replacement of skills (Valsiner & van der Veer, 2000). It can be said that the students perceived peer interaction as meaningful in conceptualizing their thoughts in social contexts. The students were mediated not only by material and symbolic tools, but also by social formations the EFL classroom.

Factor 5 : Improving aural-oral skills (M = 4.2)

The mean of Factor 5 ($M=4.2$) was the highest among the five factors. Peer interaction creates the necessity to talk and listen. This necessity to use L2 for speaking and listening during peer interaction led the learners to the actual use of L2 for communication. This necessity, along with the non-threatening and supportive atmosphere, may have increased the opportunity for their actual output in L2. As a result, the students might have felt a sense of satisfaction or achievement in their own language learning experiences, especially in improving listening and speaking skills through peer interaction. Peer interaction provided the students with opportunities for abundant aural input and oral output,

which enhanced their confidence in their aural-oral skills.

Next, the findings concerning Research Question three are discussed. The result of Analysis of Variance shows that there were no significant differences in the evaluation of peer interaction between the lower grade and the higher grade groups. The cognitive assistance that emerges through dialogic mediation within the ZPD is not necessarily provided by a more capable peer or expert. Peer interaction provides various opportunities for learners to develop their L2 (Ohta, 2001). As Ohta (1995) contends, both experts and novices benefited from the interaction. Furthermore, when interacting collaboratively, there was no one fixed expert. Instead, both learners either alternated in that role or more often pooled resources whenever uncertainties arose concerning language choices (Storch, 2002). The ZPD is created through negotiation rather than through the donation of scaffolding as some kind of prefabricated climbing frame. (Newman, Griffin, & Cole, 1989). Also, the ZPD is multidimensional, dynamic, and the site of potential growth (Johnson, 2009), and it is transformable in the activity of dialogic engagement. Thus, these aspects of the ZPD may have contributed to making peer interaction meaningful for both groups.

General discussion

The results of the present study indicate students perceive peer interaction as meaningful in social interaction with peers in L2 (Factor 1), promotion of oral output (Factor 2), encouragement in developing ideas and concepts (Factor 4), and improving aural-oral skills (Factor 5). It can be interpreted that peer interaction provides students with the opportunity for social interaction with peers in L2 (Factor 1), opening the path to internal mediation(Factor 4). Social interaction can serve as the basis for managing mental activity. Peer interaction makes it possible for the L2 to serve as a tool for mediating social activity and mental activity. As SCT suggests, language can be used as both a means of accomplishing social interaction and of managing mental activity.

Furthermore, what the students experienced through peer interaction was not the straightforward appropriation of skills or knowledge but the

progressive movement from an external, socially-mediated activity (e.g. Factor 1, 2 and 4) to internal mediational control (e.g. Factor 4 and 5) by individual learners. It can be said that all four factors co-construct each other and influence their mutual development.

However, in one aspect such as 'mutual teaching and learning', peer interaction did not turn out to be highly evaluated by the students. The reason could be that it requires students to use metalinguistic knowledge, which is somewhat demanding for the students who are in the middle of nurturing it as L2 learners.

This study also shows that peer interaction occurred on three dimensions: affective, social, and cognitive. On the affective dimension, peer interaction contributed to creating a non-threatening and supportive learning atmosphere. Since the partners were their classmates, they were able to speak English without fear of making mistakes. That atmosphere also stimulated a desire to express oneself. This affective dimension might have facilitated social interaction with peers in L2. On the social dimension, the students interacted with their peers in L2, which gave them an opportunity to understand each other. In addition, peer interaction gave them an opportunity to broaden their views and deepen their thoughts by listening to others' ideas and opinions. As for the cognitive dimension, exchanges of questions and answers between peers were perceived as helping the students to organize their ideas and deepen their thoughts. These three aspects of peer interaction may have contributed to enhancing an individual's sense of agency in this course.

Implications for an EFL high school classroom

When learners participate in activities, intentionality and desire are important. Agency is a relational construct, which is connected to motivation and correlated to L2 development (Lantolf & Thorne, 2006). The students in this study had the opportunities to express themselves in L2 and to deepen their thought by exchanging their ideas with their peers. In this sense, agency is constructed through participation in the activity. As SCT suggests, higher-level human cognition in the individual has its origins in social life, and agency is transformable in response to ongoing activity. More specifically, partners' responses were nonjudgmental in

peer interaction, so the students did not feel nervous at all during pair work activities. Furthermore, peer interaction gave the speaker immediate and direct feedback while they engaged in exchanging their feelings or ideas. Getting feedback from a partner such as “good” or “great” has significant meaning. One of the characteristics unique to adolescents is that they are concerned with what their peers think and how they feel. In that sense, peer mediation may increase motivation to communicate even in L2.

An EFL high school classroom is considered one of the immediate communities of practice, where students spend at least six hours a day together. In that sense, participation can be both personal and social in a classroom. It involves our whole person, including our bodies, minds, emotions, and social relations (Wenger, 1998). Each individual is mediated not only by the L2 they are learning but also by a certain kind of social formation in an EFL classroom. Therefore, not only facilitating language skills but also supporting continued development as a person is important in an EFL high school classroom.

Limitations

This study was small-scale with 76 participants. In order to increase generalizability, it needs to be replicated with a larger high school student population. Furthermore, the study should include participants attending various types of high schools. In addition, further longitudinal studies of classroom SLA are also necessary to gain insights into learning processes.

Conclusion

This study reveals that the students in an “English Expression” course perceive peer interaction as meaningful mainly in four aspects: (a) social interaction with peers in L2, (b) promotion of oral output, (c) encouragement in developing ideas and concepts, and (d) improving aural-oral skills. This study also shows that there is no significant

difference between the lower- and the higher-level students in the evaluation of peer interaction. It means that the higher-level students as well as the lower-level students perceive peer interaction as meaningful in those four aspects.

This study also reveals that peer interaction occurred on three dimensions: affective, social, and cognitive, which may have enhanced individuals' sense of agency in this course. A language learner in an EFL high school classroom can be seen as an agent who uses the language in a dynamic, ever-changing context in historically and culturally situated ways. Not only improving language skills but also enhancing an individual's sense of agency is important in a language learning classroom. This suggests that peers can serve as effective mediators in an EFL high school classroom. In that sense, peer interaction can make the language learning classroom meaningful.

A sociocultural perspective helps us to understand the cognitive and social processes that learners go through in language learning classrooms. Furthermore, it is hoped that the findings of this research will contribute to changing the way English teachers think about language teaching and helping them to find ways to make peer interaction more meaningful in EFL classrooms.

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Appendix

Open-Ended Questionnaire

In this "English Expression Course," you have engaged yourself in pair work activities in each lesson. Answer the following questions and write your comments freely.

1. Do you perceive pair work activities as meaningful in some aspects in this course?
2. When and how have pair work activities been beneficial in this course?

3. Do you think pair work activities have helped you to improve your speaking skills?
4. Do you think pair work activities have helped you to improve your writing skills?